



NRRL Medium No. 49

MMN Media (Modified Melin-Norkrans)

Stock Solutions:

CaCl ₂ ·2H ₂ O (Calcium Chloride Dihydrate)	10.0 g -> 200 ml distilled water (0.05 g/ml)
NaCl (Sodium Chloride)	5.0 g -> 200 ml distilled water (0.025 g/ml)
MgSO ₄ ·7H ₂ O (Magnesium Sulfate Heptahydrate)	3.0 g -> 200 ml distilled water (0.015 g/ml)
(NH ₄) ₂ HPO ₄ (Ammonium Phosphate Dibasic)	10.0 g -> 200 ml distilled water (0.05 g/ml)
KH ₂ PO ₄ (Potassium Phosphate Monobasic)	10.0 g -> 200 ml distilled water (0.05 g/ml)
FeCl ₃ ·6H ₂ O (Ferric Chloride Hexahydrate)	1.2 g -> 200 ml distilled water (0.006 g/ml)
Thiamine HCL (Thiamine Hydrochloride)	0.1 g -> 100 ml distilled water (0.001 g/ml)

*Filter sterilize Ferric Chloride solution. Autoclave all other solutions. After solutions have cooled, keep in refrigerator for future use.

Preparation of full strength MMN media (per 1 liter)

*Add stock solutions and solid media materials

<u>Component</u>	<u>Full Strength MMN</u>	<u>Composition</u>
CaCl ₂ ·2H ₂ O	1.0 ml	(0.05 g/1000 ml)
NaCl	1.0 ml	(0.025 g/1000 ml)
MgSO ₄ ·7H ₂ O	10.0 ml	(0.15 g/1000 ml)
(NH ₄) ₂ HPO ₄	5.0 ml	(0.25 g/1000 ml)
KH ₂ PO ₄	10.0 ml	(0.5 g/1000 ml)
FeCl ₃ ·6H ₂ O	2.0 ml	(0.012 g/1000 ml)
Thiamine HCl	100 ul	0.1 mg/1000 ml)
D-Glucose	10.0 g	(10 g/1000 ml)
Malt Extract	3.0 g	(3.0 g/1000 ml)
Agar	15.0 g	(15.0 g/1000 ml)

Add 940 ml of distilled water and autoclave at 121 C for 30 minutes.